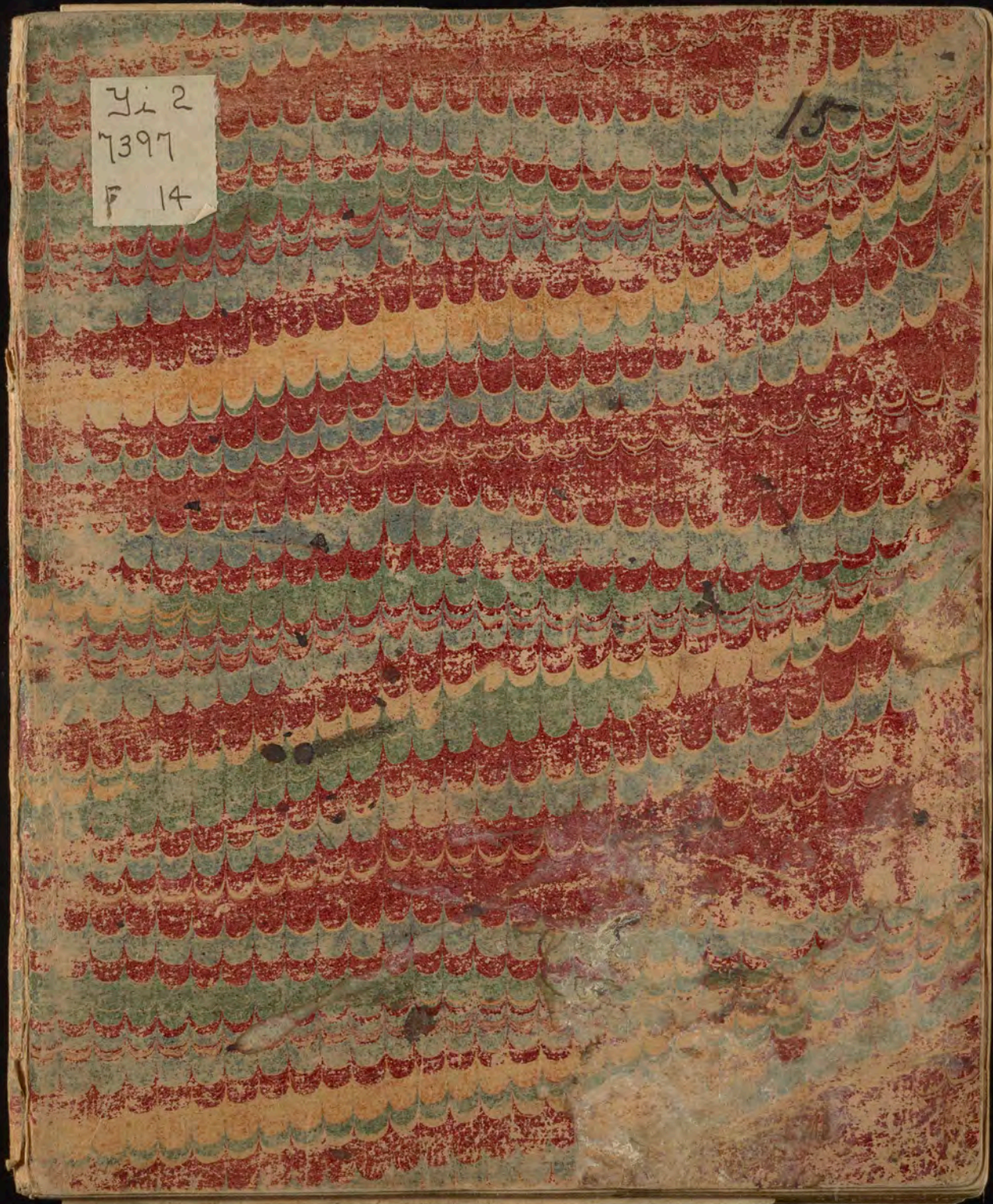


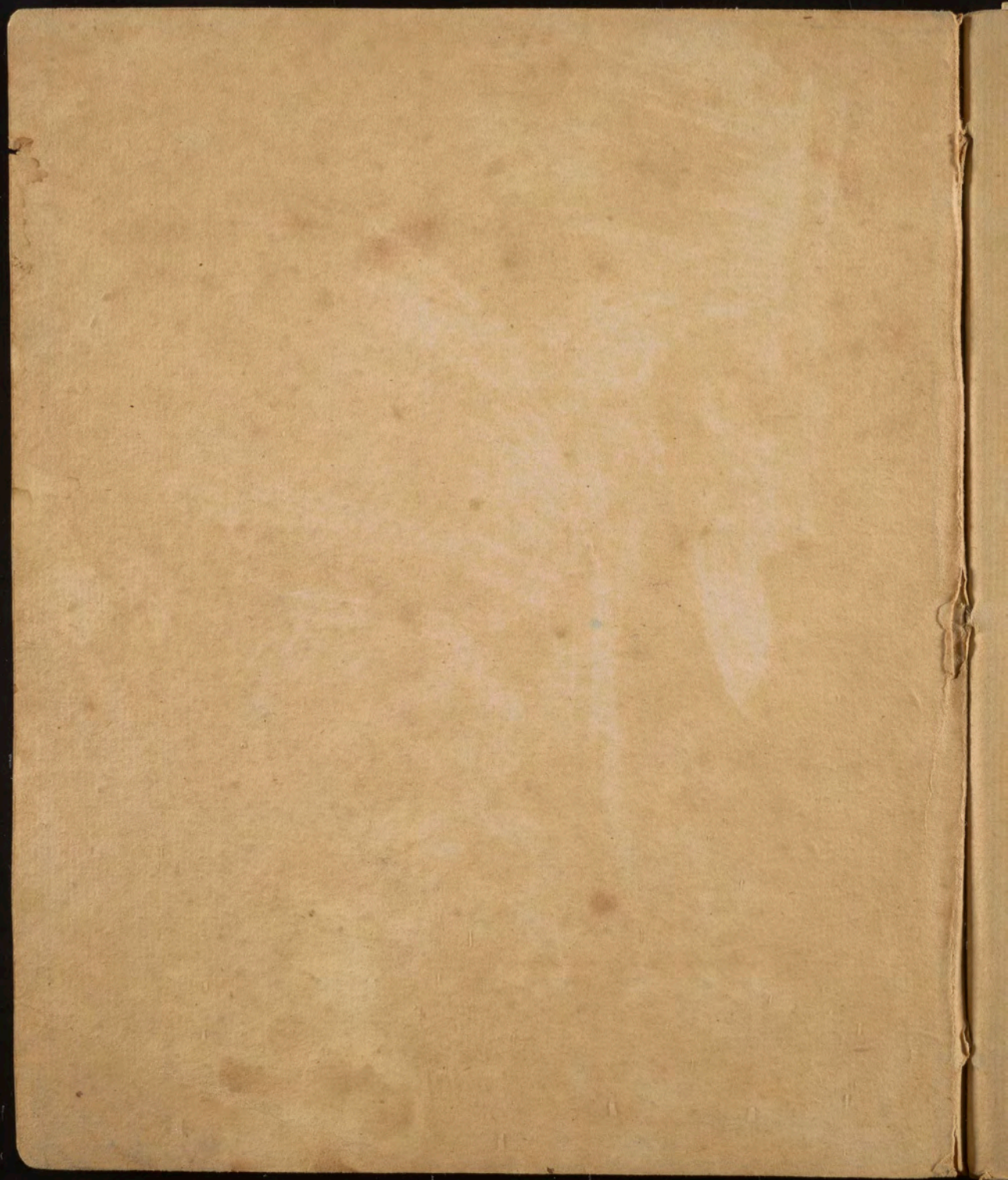
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15





Dreams cont^d

Aliment 585

Hunger 615

(k) From what has been said of the partial excitement or waking state of one faculty, while others are asleep we may understand the reason why we are able to wake at any hour we please. This is most observable when we are about setting off on our journey at an earlier hour than our usual one of rising. It is owing to the memory ~~not~~ being kept from falling asleep by our strong desire to wake at the wished for hour. We have likewise from the history of Dreams that has been given why ~~but not~~ ^{some persons} compose poems, and write reasons in their sleep. It is owing to the waking state of the Understanding, with a small portion of the memory - when ~~poems~~ ^{verses} are composed - the memory is awake only for words. — go to p 568 v. 0

a person who is awake, but deprived of the use of some of his faculties by disease. — How differently does the understanding ^{alone} operate in a dream, to what it does in a person who is bereft of every rational faculty except the understanding — by an attack of the palsy? — How differently too does, the memory act in a dream, — to what it does in the waking state! — we dream for instance of every thing that related to a departed friend — whom we see in a dream, without once recollecting that he has been dead perhaps for months or years — This shows irregularity

~~The~~ But further - how differently do we judge of right and wrong, ~~and~~ and how differently do we act with respect to certain moral obligations in dreams, from what we do in a waking state. How often do we ^{perpetrate} offenses against delicacy, and ^{chastity} other virtues ^{in a dream} at which we should have shuddered when awake! This depends ^{total} that part of the brain which is upon the sleep of the moral faculties, the seat of ^{it} while the rational faculties are in exercise it may depend upon their acting in an irregular & convulsive manner.

= And to its ^{dreaming} concentration in the dreaming faculties or part of the brain.

✓ I ~~said~~ have said that dreams are incoherent, hence we derive an argument in favor of the truth of the dreams recorded in the old & new testament. They are all incoherent, and all

as well as partial excitement
of motion evidently to take place in
those spots of the brain which are
the seats of the different faculties of

the mind. In the case that has been mentioned
it shows the memory to be but partially excited. It recollects
the friend, but forgets his death. ~~It~~ ^{the friend} ~~is~~ ^{very} remarkable that

the images of things which are presented
to the imagination are much more
vivid in the dreams than in the
waking state.

~~—~~ ^{from the senses} ~~all external impressions of~~
owing to an abstraction of excitement
from the seats of the other faculties
of the mind.

~~—~~ ^{as there is an} ~~as there is an~~
~~—~~ ^{an inflame} ~~to the great increase of strength~~
in the arterial system in a fever,

~~at a time when there is an evident~~
~~from an Abstraction of Strength~~ ^{from} ~~all~~
~~diminution of Strength~~

require Divine interpretation to understand them. They were insupportable even to the persons who Deemt likewise.

It is equally remarkable that the Will acts with more force in the Dreams than in the waking state, and probably from the same abstraction of the force of the other quiescent faculties of the mind. This proternatural force of the Will appears in its producing emotional visions in our Sleep. No such power

has ever been exercised over the seminal
vesicles in the waking state. ^{In sleep} This is obvious
~~to compare experience the vesicles by Dr. Darwin.~~
~~Nothing more occurs in this increase~~

of the action or force of one faculty by the
quiescence of another - than what happens
in the Senses - The life or suspension of
one of them is always followed by an accu-
mulation of force in others.

+ Stewart the famous pedestrian traveller
never dreamt ^{in former times} after he began to live
wholly on vegetables.

~~the senses of the body~~ ~~the~~ memory

✓ ~~superior~~ more active facts from 14.

Do we dream always? - This

is an important question, and leads

us to ^{another} ~~the~~ important ^{inquiring} ~~question~~ of the

sleep of Soul. It is certain ~~nothing~~ ^{that} ~~that~~ ^{labouring}

~~people do not dream at all, nor~~

people who sleep soundly dream but

little, and that many people do

not dream at all. Mr Locke tells

us one instance of this kind, and

I knew another in a young woman

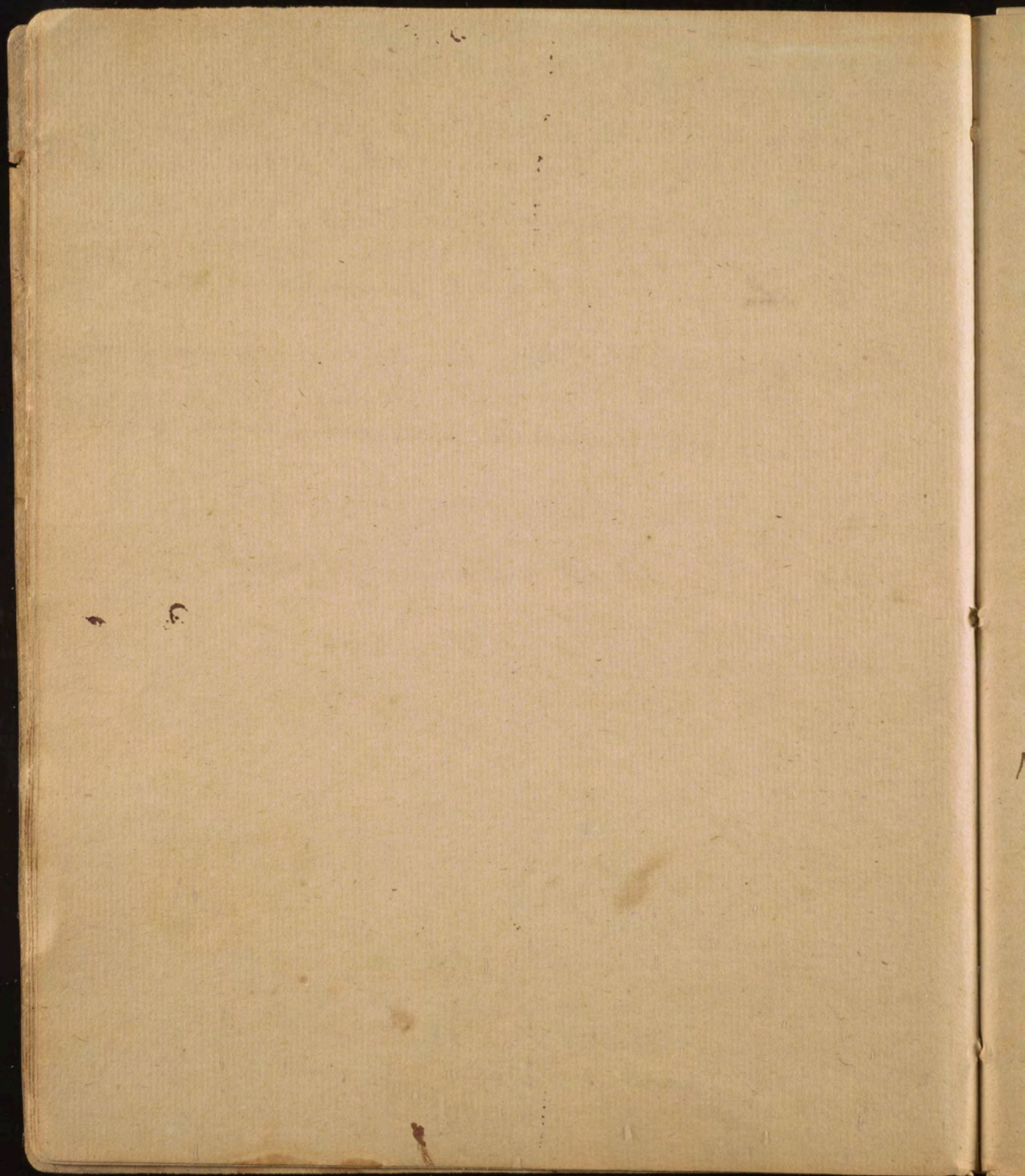
of 30 years of ~~age~~ ^{life} in this city. From these

facts Mr Locke infers that the Soul sleeps

with the body when we ~~not~~ ^{do} dream,

- for to what purpose, ^{says he} should we spend

whole nights in thinking, and derive no



^{or Advantage}
 fruit from our thoughts? In answer to
 this we are told that children lose all
 the thoughts of the first three years of
 their lives, and that many people retain
 so few, and derive so little advantage
 from their waking thoughts, that they
 might as well be spent in sleep with-
 out consciousness, as be wasted in their
 waking state. — In answer to the first
 objection I shall observe, that I ^{Do not} ~~deny~~
^{admit} that children have any thoughts to waste
 before they are three years old, for
 the whole of that time is employed
 in learning a language, or ^e in con-
 nection between substances & signs
 or words. — As to the 2nd objection,
 it has no force — If men waste

v mechanical impressions only not mental
analogous to Voice & Speech -

5th original contrivance of the
their thoughts, it is no fault in the ⁱⁿan-
= mal Economy, for our wise Creator ne-
= ver made any thing - not even a thought
to be wasted, or employed unprofitably
upon any Subject. —

^{Sometimes}
believe that we ~~for a moment~~ dream
I ~~should have been glad to have~~
without a consciousness of it the next
^{perfectly} ~~and~~
day. This is owing to the ~~sound & healthy~~
sleeping state of the memory which
leaves the chaos of thoughts ^{if} have
been excited in the night to perish
in the ~~vacuum~~ of the brain. ^{But} ~~I should~~ ^{would}

as soon believe that an imperceptible
^{always existed} ~~blood vessels~~
fever ~~was absent~~ in the ~~body~~ ^{do}
that ^{existed constantly} unconscious thoughts in a healthy
State. ✓ [I should have been glad of

✓ If dreams were not ^{of a} morbid nature
it would call in question the perfection
of the human body in its original
State - I should be disposed to say that
the proof if ~~this~~ Dreams were
essential to our existence - how blest
are they who ~~sleep~~ ^{wake} no more -
- not so - if Dreams infest the grave.

for 9 out of 10 of them are sources of
N misery to us. - It is remarkable that ^{Dreams} they
are most common in the Decline of life when
Sleep is rendered ~~very~~ unsound from the
numerous infirmities of old age for
~~old people~~ ^{old people} ~~do~~ ^{have} dream a great deal. They are
common likewise in youth where sleep is imperfect.

the aid of the perpetual stimulus of the
 thinking faculties in ~~accounting~~ for
 the continuance of an ~~animal~~ life in
 sleep - but ~~very~~ I could not be introduced
 there consistently with the objections ^{which} ~~is~~.
 I have made to the operations of the
 mind going forward in healthy sleep.
 I conclude therefore with Mr. Locke,
 that the soul sleeps with the body in
 perfect health - & that Dreams are

always - morbid phenomena in the
 system. This will readily be admitted if we believe that
 to be the effect of organisation of the brain.
 I could as soon believe
 that a fever was necessary to keep up
 the circulation of the blood, as the
 perpetual stimulus of unconscious thoughts
 to keep up animal life. ✓

It has been observed that
~~The truth of it is an experience, we~~
are able to wake at any hour we
please in the morning. How shall
we account for this? — Why by
admitting the dream to be so much
excited by our desire to remember the
hour of waking or rising before we go
to bed, that it does not sink into sleep
during the night. — The understanding likewise is
often nearly ^{impaired} ~~concealed~~ — witness connected dreams. [poetry made in dream
[my own line]]

✓ Dreams may be resumed when
we wish it by retaining the same ~~the~~
position of our bodies & head in bed
in which they first occurred.

The Oblivion of our Dreams may
be prevented by keeping our eyes shut
for some time after we awake. They
are often remembered when we wake gradually.

In certain diseases a state of the mind, Dreams
are mistaken for Realities. see DeCuvie.
Blackburn. many people, thus lose their character
for veracity. — E Boudinot — &c

73

The certainty of Dreams depends much on
~~Disorders~~ ~~are much~~ influenced by ~~con-~~
~~ditions~~ ^{enter the the action} of certain stimuli
- ~~certain circumstances~~ ^{a full or an empty stomach have}
upon the body & [a full bladder] - and the
a great influence in producing Dreams -
morning twilight, ^{likewise} frequently produces
them - hence we dream most frequently
about day light. - ~~It is difficult to~~
~~opinion of~~ In short there is scarcely
any stimulus external or internal
that will not produce a dream in
habits rendered inevitable by the com-
mon modes of life among civilized
nations. - ✓

The specific nature of Dreams is
~~much~~ ^{in part} influenced by the nature of the
stimuli which are applied to the
body. E.g. ^{an empty} ~~hunger~~ produces
Hunger, &

by a mischievous boy

✓ The stimulus of a pin in the back of
a ^{pious} ~~Methodist~~ ^{minister of the Gospel} ~~preacher~~ made him cry out
in his sleep - "Oh!! now I know what St.
Paul meant by a thorn in the flesh." ⊕

7 ~~But~~ Dreams are influenced further by ~~association~~
~~relationships~~ the subjects which have previously occupied
the mind, altho they do not appear to be related to
each other. — Of this there are proofs in the
experience of every body. By inquiry we shall find
they ~~are~~ related by former associations.

Dreams are most connected, when we
~~hold~~ ^{hold} ~~congregations~~ ^{congregations} in them; Language
diminishes the rapidity & irregularity of our
thoughts. It is probably because Brutes
have no language that they are unable
to reason. Their inability to reason I
said constituted the principal difference be-
tween their minds, & the minds of the human
species. — [Reasonable creatures - we reason only]
In our dreaming of fighting we often

574 moderate degree of
Dreams about eating. & a ~~moderate degree of~~ cold

produces dreams of more intense sufferings
from ~~from~~ it. But this connection between dreams
and certain impressions made upon the senses is
happily illustrated by an anecdote in Dr. Beattie's
works. He tells us of a young ~~man~~ ^{officer} who went
thro' all the forms of a duel in consequence of
certain ideas excited in his mind by whisper-
ing in his ear. He awoke at last from
the explosion of a pistol which had been put
into his hand & ^{ch} he believed he had fired at
his antagonist. ~~return to p 569~~

But there are not only ^{or irregular} morbid ~~thoughts~~
in our Sleep, but certain morbid ~~convulsions~~
~~actions~~ from a premature or
~~excessive~~ motion in certain parts of
the Brain determining an influx into

the muscles or limbs which are called
 into action in sleep. — These actions con-
 sist in talking & weething & in our sleep,
 and in performing many ^{other} exercises of volun-
 tary motion. ✓

The many wonderful
 facts are related of the exploits performed
 by the Somnambuli as they are called on
 by persons who wake in their sleep.

The story of the young man related in the
 memoirs of the French Academy who com-
 posed an oration in his sleep in a single
 night is too well attested to be doubted. Dr

Hallorup names us that he wrote verses in
 his sleep. The late Rev D Blacklock ^{the blind poet & philo-}
 sopher of Edin^{burgh} rose from his bed to which he had retired
 soon after dinner — came down stairs —
 sat down at his table & supped with his family,

+ ~~The Beggar~~ - ^{performances} one of the finest poems in
the celebrated, but ~~unfortunate~~
~~the poems of Mrs Robinson is said to be~~
~~the "maniac"~~. It originated ~~the~~ had been
said
a ~~man~~ deranged man the day before
in the streets of Bristol, known by the
name of "mad Lemmy". ^{the afterwards} At night she
took a dose of opium, & in the ~~partial~~
extremity of her mind, ~~but~~ dictated to her
daughter that incomparable poem en-
titled "the maniac"! The next day she
had no knowledge or recollection of that
~~what she had done~~ elegant performance.

conversed with them as usual to ~~no~~^{insert}
 sense, and finally entered ~~into~~^{to discover} the cause of
 a pleasant song. All this being done,
 he suddenly started up, and to the surprise
 of the company discovered that he knew
 not ~~where~~ what he had been doing, and
 that he had been asleep during the whole
 time that he had passed with them. +

again -

~~It is very remarkable that these~~
 Somnambuli never remember a single
 thing they do in their sleep after they
 awake - ~~and~~^{but} it is still more remarkable
 that they remember in each ~~fit~~^{fit} of
 right walking, every thing they did ^{in the walk of}
 right before. This has been inferred
 from the ^{exact} order with which they
 their undertakings or retumatural, or

I shall hereafter mention a
Case of a lady exactly similar
to the one I have read - induced
by derangement.

had no son
~~what she had~~

I have been much puzzled to ~~insert~~^{insert}
~~even a single conjecture into~~^{not to discover} the cause of
 this wonderful phenomenon in the operations
 of the human mind, nor should I have
 attempted to explain it ~~even~~^{but} to deliver one, had I not met
 with the following curious history of a
 case in Connecticut ~~in~~^{late} in a letter from
 Dr Lathrop of Springfield, to the Rev^d Dr
 Stiles President of Yale College at New Haven.
 This ~~letter~~^{late} case
 which I hope will furnish me with at least
 one ~~link~~^{string} of a clue to guide me into ~~the~~^{an}
~~some~~^{some} explanation of the cause
~~has~~^{has} knowledge of this singular fact. ✓

The motions in the Lumb^mbruli and
 in this patient appear indeed as if they
 depended on two minds, but they may
 be explained by supposing that they
 were derived from preternatural, or

V Persons who talk in their sleep
seldom remember ^r Dreams.

Darwin.

577
~~convulsive~~ ^{eruptive} motions of different spots
of the brain inhabited by one & the
same mind. — V

You recollect I said formerly that
every act of memory was produced by
a repetition of motions in the brain
exactly the same in degree & situation
which first produced the idea or thought
which is the object of memory.

may not
" The reason why the actions performed
in sleep, and in the paroxysms of the
disorder I have described, ~~are~~ ^{are} ~~not~~ ^{not}
remembered is, because ^{be,} ^{a sufficient} force of im-
-pression is ^{not} applied to reexcite the

Ideas which have been lost? or if
a sufficient force ^{to reexcite them perhaps} be applied, it is ~~not~~
may it not be ^{it} directed to ~~the~~ ^a part of the brain ^{wh} it

when cured frequently
✓ madmen remember nothing of ⁺ it:

passed when they were deranged, but when
they relapse, - they generally return to the
former Subjects of derangement E.g. a man
in the hospital who tho't himself an Ad-
miral & ~~It is probable~~ Drunkenards forget
⁺ to they do when drunk. ^{They} probably they re-
member ⁺ to they do, in the next Drunken
fitt. The reason why ^{we} do not remember
things sometimes is owing to excitement &
emotion ^{or below} beyond the idea first lost, first
produced, ~~or~~ hence it occurs when ^{we are} not
seeking for it. — ^{Kempfer} says that he

was once intoxicated at a table in
Persia by partaking of a Substance called
Peganum which produced transports ^{of joy} however
felt before - but he forgot ^{the signs of} them all the next day.
melancholly from ^{one} cause often revives

is not the seat of that part of the memory
from whence the action or ideas that

are forgotten, were derived?

I shall mention ^{the subject of latent memory} two facts ~~formerly~~ ^{which} will

throw some light upon this sub-
ject. The ~~memory~~ ^{remembrance} of the contents of several

of the Welsh language was excited by
a fever - and of my ~~remembrance~~ ^{the remembrance} of whom

I ~~had some former~~ ^{formerly spoke} ~~from supping with John~~

~~Brown in~~ ^{Edin} of the French language,
was awakened
by a fit of drunkenness. In both these

cases memory was excited by a new &
powerful force, acting upon a long ^{or quiescent} passive
part of the brain. ✓

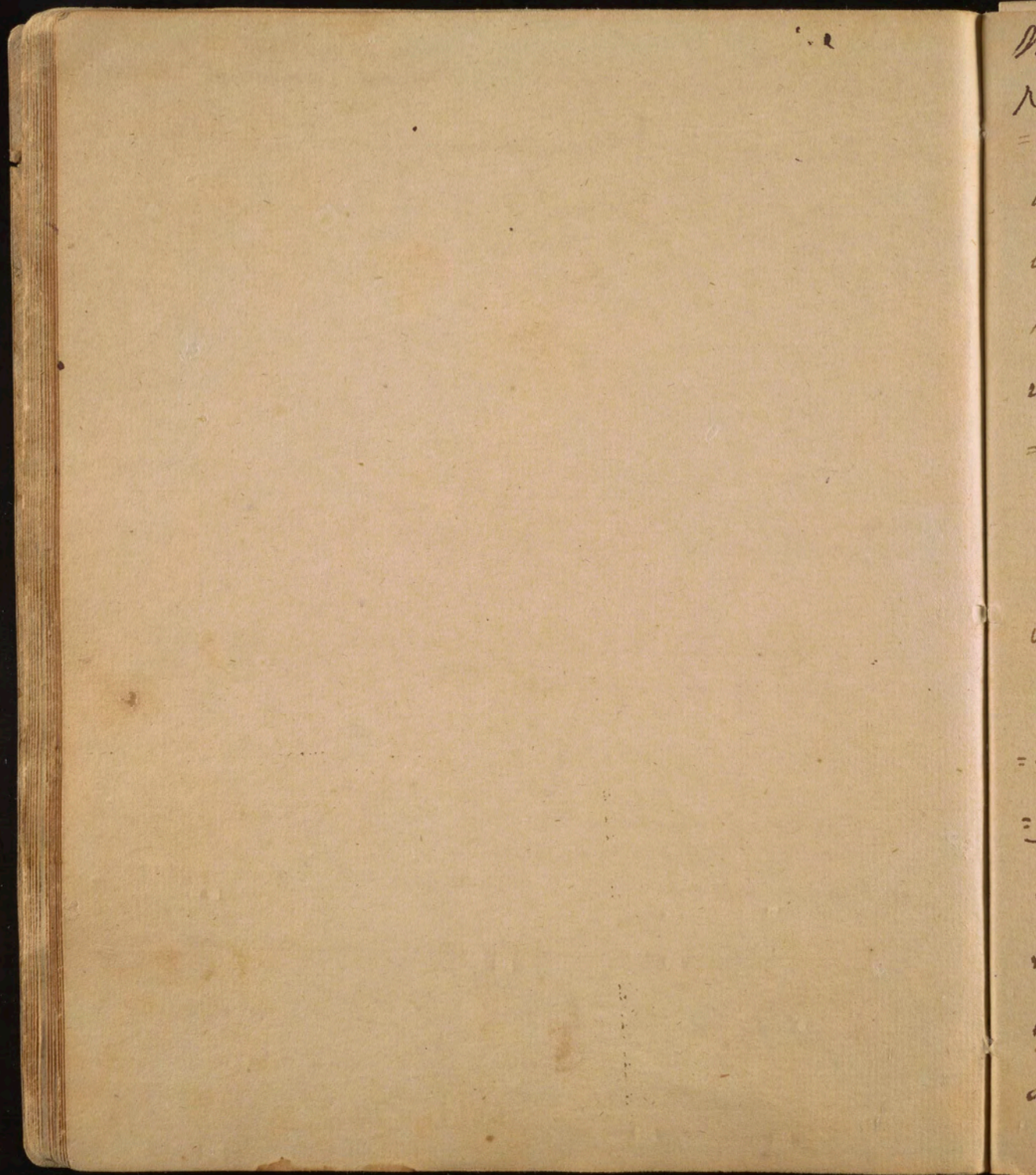
If the ^{or thoughts} actions ~~on~~ which are forgotten
in ~~lunatic~~ ^{in lunatic} part of the analogy of the Imagina-
tion and ~~lost~~ the Venereal Appetite,

from continuity of action the Disstep
from a former cause. Miss R. Storer.

- hence we find in religious people
that grief from the loss of a friend,
^{relation or}
often revives the ^{anguish of} repentance which
^{painful sense of guilt} or the
characterised the commencement
of their religious habits.

they will certainly ~~be excited by an~~
~~unusual and preternatural force, and~~
 that too proportioned to the quiescence of
 other faculties ^{of the mind, & other} ~~parts~~ of the brain.
 It is no more wonderful to me than γ :
 Somnambulists cannot recall the
 thoughts and actions of the night, ^{without} ~~then~~
 relapsing to the situation they were
 in when they first occurred, than γ :
 we cannot recall the vivid impressions
 of the imagination, or the powerful
 stimulus of the will on the seminal
 vesicles ^{which occur} in a dream in our waking
 state. They can only be recalled by the
 same force, acting in a dream upon the
~~same part of the brain~~ ^{same part of the brain} first. —

~~It is remarkable that none of the~~



None of ⁵⁸⁰
Actions performed by the Somnambulists
=ing sleep fatigue them. This shows ^{that} they
depend on preternatural or excessive
excitement in the brain. We are
never fatigued by the actions we perform
in the waking state while we ^{are} exhilara-
=ed by the stimulus of pleasant passions,
or cordial drinks.

I would remark ^{further} that these emotions
in the brain in Somnambulism appear to
differ from those which occur in com-
=mon dreams by being excessive but regu-
=lar - Those in common dreams are
irregular and both excessive & deficient
in force according as the excitement
of the brain is above or below the
sleeping point. - They resemble the
excessive action of the arterial system

V There is one more fact with res:
-pect to dreams which remains to
be explained, and that is why we
so seldom dream of persons who
are most dear to us. I never dream
of each other only in ^{the} beginning
or declension of the passion of
love. The late Mr R: informed
me that he was 7 years under
the influence of a strong attachment
to a lady, during all which time
he never once dreamed of her.

~~Intimate friends & Relations~~

The reason of this fact, I sus:
-pose to be, that the imagina:
-tion, and

Memory are so worn down by
constantly thinking of the beloved
Object during the day, that no ex-
citement or excitement are left
in those parts of the brain in
which memory & Imaginⁿ are seated,
for the Idea of the beloved Object
to act upon. For the same reason
friends when separated cannot recall
each other's faces. The paralytic weakness
here is only in Imaginⁿ not in the memory. =

582.
Dreams, & Actions in Dreams are at the
not confined to the human species.
we observe them in Dogs & horses.
The former bark & the latter
reign in their sleep. Cows low in
their sleep after losing their calves,
and bulls & rams are said to
discover strong marks of being
agitated by Dreams during the
period in which they feel the
impulse of Venereal desires.

it to the same accidental coincidence
 which takes place between ~~our~~ events
 and our waking thoughts. ^D But let me
 close altogether ~~as an~~
 not ~~limit~~ ~~to~~ channel this which has
 the ~~system~~ ^{being}
~~has~~ ^{providence} has in extraordinary
 cases even in modern times acted on
 the human mind. It is not my business
 to determine when these cases occur, but
 a man must renounce his powers of judging
 and believing, who rejects them in all
 possible cases whatever. ✕

✕. The business of a physician is to dis-
 cover ~~not~~ ^{now} what is - not what is to come
 from ~~dreams~~ ^{dreams?}. When they are more frequent
 more distressing, - or more terrifying
 than usual, they indicate an incipient
 disease, and of course ^{should} suggest ~~hints~~ to
 the subject of them, & to the physician

Dreams in Phrenicula ~~to~~ indicate
tonic action - They are terror &c -
In Hysteria - direct debility - they are
fear &c -

✓ It ^{further} ~~seems~~ to equalize the ex-
-citement of the system. It does
this by collecting all its scattered
fragments first into the
blood vessels, from whence it is
^{afterwards} diffused to every part of the body.
The recumbent posture of the body
favours the equal distribution
of excitement, hence we find
turnover to 585. +

the necessity of temperance - exercise - or
 evacuations, or other medicines, ^{and} to ~~prevent~~
~~thereby to strangle a disease before it is~~
~~that disease from being~~
 completely formed. ~~Q~~

I need ^{hardly} mention the ^{Uses and} final cause
 or use of Sleep. It has been emphatically
 called "Tired Nature's sweet restorer" by One
 of the poets. - It renews every day's own
 capacities, and sensations of pleasure, &
 imparts every night a sweet oblivion
 of many of the pains and ~~most~~ ^{of} all the
 cares of life. The happy & the miserable
 are therefore alike indebted to it. V

I ~~from~~ mentioned the Use of
 Dreams formerly in speaking of the
^{animal} spirits which produced life. They
~~never~~ exist in those habits, and

✓ They serve further (says Darwin) to diminish ^{the} excitable accumulated in sleep, and thereby to prevent Delirium in waking from the first impressions of stimuli upon the senses.

Here first: we take leave for a while of the functions & operations of the mind. Say not I have puzzled you with theories upon this ^{history} subject. I have delivered little else but a detail of facts ~~upon it~~ in describing ^{the} various faculties & operations of the mind. Permit me to recommend further inquiries into each of them in your future studies. I will not say that every disease is a compound of body & mind, but I will say, there is scarcely a general disease in which great advantages will not arise ^{to you} from ^{a knowledge} studying the laws of the mind, ~~as well~~ and that those physicians will always be most successful in curing ~~the~~ diseases who ^{apply to the} ~~apply the remedies to~~ ^{ally in the} ~~the~~ ^{analysis of} the mind as an ~~additional~~ channel thro' which

in those states of the system in which
 they are most necessary - that is where
 there is ^{the other} weakness or absence of ~~the~~ stimulus
 of which ^{support animal life during} ~~arises from the vigorous exercise~~
 sleep. ^{otherwise} They serve further - to indi-
 cate the presence or approach of many
 diseases. V

Lect: 23: Jan^r 25th: 1792.

~~It is some time since I have mentioned~~
~~my Guide in my present researches into~~
~~the Economy of the human body, but~~
~~I have not forgotten him. After having~~
~~been conducted by him thro' the many~~
~~intricacies of animal life - of the Senses &~~
~~Calorific of the faculties & operations~~
~~of the mind, and of the various pheno-~~
~~mena which preceded that those~~

they convey their Remedies to ~~the~~ ^{the} body.

+ Pain of all kinds, more especially
where it affects the stomach or
bowels, ^{is} much relieved by laying down.
Even the pain of the tooth ache is
mitigated by this ~~bad~~ position of
the body. It ^{relaxes} ~~leaves~~ the muscles in a
state to receive excitement. ^{by relaxing them} They

goes to p. 614 - living in Aliments
Ochroder Myzgia.

have 585

Subjects, I ~~fancied that I~~ ^{had} ~~inquired~~
to him that he ^{had} spoken frequently of
Aliment - Digestion - ~~Respiration~~ ^{blood Lymph -}
Secretion & excretion & ~~and~~ begged to be
informed what he meant by them.
He readily consented to instruct me
in the nature of ^{Aliments & of} each of those animal
functions; and I shall now lay before

the information which I fancied I
received from ~~It remains now that I~~
deliver the physiology of each of those Subjects.
I shall begin by ~~detailing the history~~
^{making a few remarks upon}
Lect: 24th of Aliment. Jan^y 27. 1792

X This is of two kinds - viz: Animal
and vegetable; both of which were
intended for the support & use of
man. - This I infer from the

p: 585

Before I proceed to the ^{mention them} ~~history of~~ Aliments
it will be necessary to take notice of
of the opinion of some modern Phi-
-losophers who have taken great
pains to describe the gradual man-
-ner in which man discovered
under the influence of his Reason
the Aliments which were proper
for his Support. They tell us
he first fed upon berries - then
upon the fruits of trees - then upon
roots discovered by the accidental
openings in the earth - lastly
upon grains. discovered in like
manner ~~by~~ with roots by
an accident. They tell us
further that he as man

V by divine ~~inspiration~~ Revelation
in the manner of preparing
his Aliment by means of fire
so as to render it more pleasant
& nutritious, and that without
Revelation - he ~~would~~ & his posterity
would have been as deficient
in the knowledge of Cooking as
as the brute creation. —

In a word - Gent: I believe that
not only ~~was~~ the knowledge of the existence
of a God, and all the duties we owe to
him, was derived from Revelation, but
~~all~~ the seeds or elements of all human
knowledge - particularly language -
Astronomy - Agriculture - Shipbuilding,
and all the common ^{useful} Arts,
were derived from the same source..
as from the 26 letters of the

acquired his first ^{knowledge of} relish for animal
food by a priest burning his fingers
in turning a piece of flesh ~~that~~
~~while it~~ was offering up a sacrifice
upon an altar, & then thrusting
his fingers into his mouth.

These opinions are all ^{as absurd as they} ~~as~~ hypothetical
~~they are absurd.~~

— The different kinds of Aliments
proper for the nourishment of
the human body I believe were
pointed out to man immediately
after his creation by a Revelation.

— ~~so~~ without it, I believe he
would have perished, with ^{famine} want,
or destroyed himself by ^{unwholesome or} poisonous
products of the earth. I believe
further — than he was instructed

Alphabet, we have been ena-
-bled to compose all ~~modern~~
a hundred different languages,
So from the seeds or elements
of a few original communications
by Revelation - all the discoveries
in arts & Sciences have eman-
-ated, by means of ^{the genius} ~~art~~

or reasoning powers of man,
or by means of ^{what is called} accident,
which may be considered as
a subordinate species of Revelation.

With the same blind affronting that the
modern pagan philosophers suppose we advanced
from ^{wild} berries & fruits, to our present kind of
Aliment, they suppose man advanced from a
savage, to a civilized state. now the reverse of
this is true. Man was created a civilized
being & the first Communities of men were
civilized. They ^{degenerated} ~~became~~ savages from the loss of
two things principally - Religion & letters. This
degeneration is easy and common, and has

From
h. ~~By~~ the example of our favours
who partook both of fish, and
of Land animals in his diet.

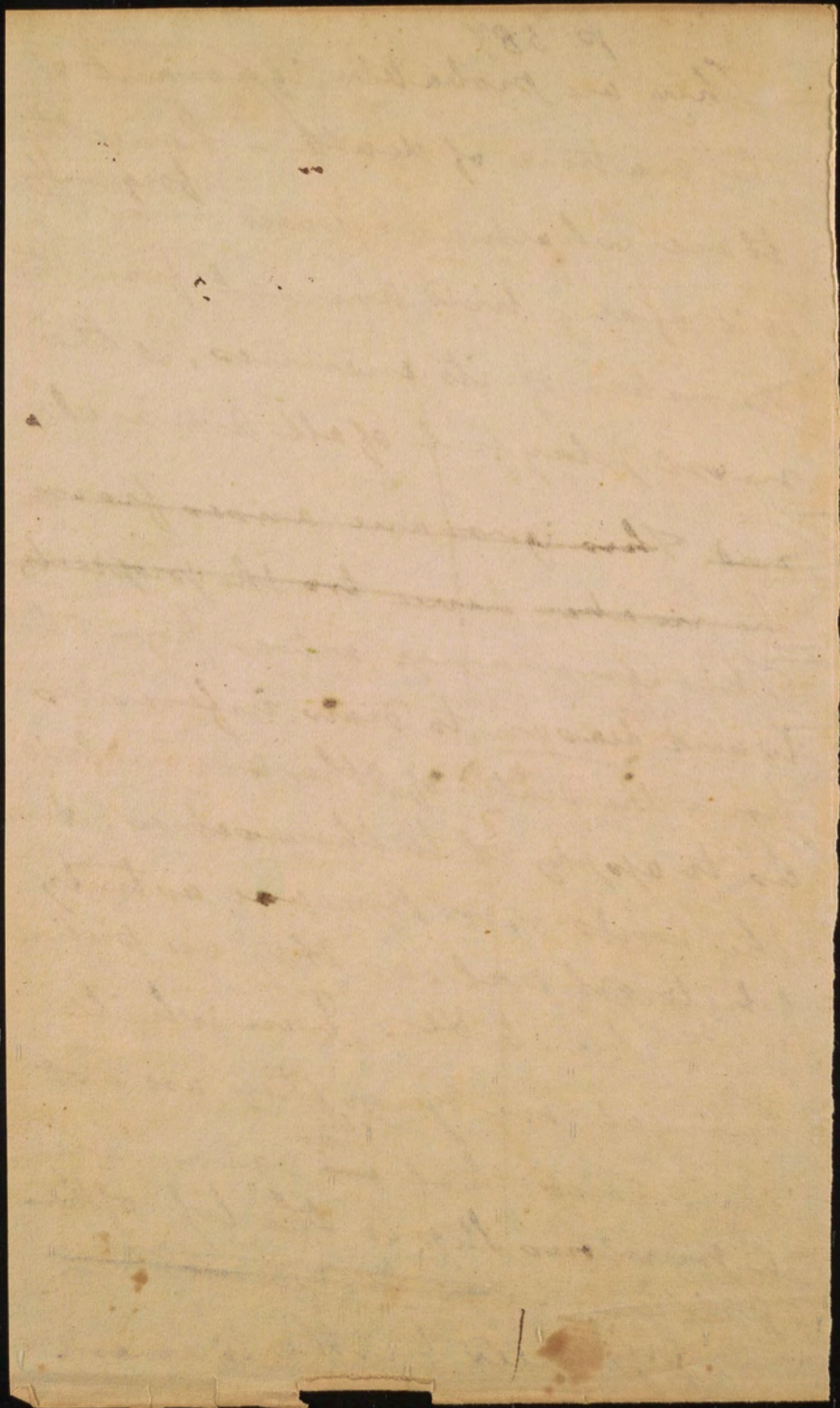
Structure of his teeth, and of the alimentary Canal - both of which are formed upon the compound principles of Carnivorous & granivorous Animals. 2 from ~~the~~ a diet consisting of either of them ^{frequently} separately, producing bad health, and 3 from the use of both being not only permitted, but enjoined by a positive command both in the Old & new testament. Let us not suppose that there is any cruelty in heaven in ~~making~~ permitting the life of one animal to be supported by the death of another. I am from it - ^{The Command to Peter} ~~This precept~~ - "to slay & eat" like every other divine ^{command} ~~command~~.

— from p: 588 —

✓ But again — the destruction of
animals by the knife or in any other
way prevents the long protracted
^{Death from disease, for we shall say hereafter y:}
^{some of the animals will kill for food, never of their diseases. It}
miseries of old age among them.
^{likewise prevents} for in this helpless situation, they
have can have no help like man
from affectionate or interested
relations or friends. ^{from Turkish diseases}
~~Each other gaze than land animals, because~~
~~left to their own devices in water~~
~~the ignorance of dumb~~
~~Animals, they suffer nothing~~
~~from the dread of death. Hence the~~
~~destruction of them by the knife is~~
~~attended with no mental anguish.~~
~~They feel in parting with life~~
~~only a momentary bodily~~
~~pain.~~ — go on to ✓ p: 588

is the effect of overflowing goodness, for
 by the ^{constant} destruction of ^{every} the Animals
 which ^{supplies} us with food, room is
 given for the existence of a thousand
 more of the same species who come
 forward and partake of the blessing
 of life. - It is by the destruction of
 animals for food, that the various
 species of them have been preserved a-
 live to this day, for had not their
^{increase} ~~destruction~~ ^{thus lived} ~~been cut short~~ in the
^{imperfect & partial} present state of cultivation of our
 earth, they would have all per-
 ished for long ago, ^{from the want of subsistence.} ~~by~~ all the
 animals, ^{which were kept} ~~as in the~~ ^{Domestic} ~~which~~ ^{have} existed
 within the last 100 ^{years} alone, are taken

p. 587
= They are probably ignorant of the nature of death - hence the glare which is exposed most frequently to it of any wild animal from the number of its enemies, is the most playful of all animals, and ~~this ignorance arises from the violent heat to the property~~ - This ignorance arises from the want ^{of} reason to draw inferences from the death of other animals, so as to apply it to themselves. Hence the words of Mr. Pope are as truly philosophical, as they are poetical "The dumb &c. Even while animals are dying, they are not conscious that ^{their} pains, are a previous step to the loss of their existence. ~~go to V p. 588. &c.~~
I proceed further to remark



Turn back to p: 587.

✓ In a more cultivated state of
the earth, ~~and in a more improved~~
~~state of morals and particularly~~
~~of humanity~~ it is probable, animals
will cease to ^{compose} be part of the food
of man, but ~~until this~~ and that
the products of agriculture will be
so numerous & abundant ~~that~~ ^{as} to
afford ample ~~substance~~ ^{substance} to all the
tenants of the globe without obliging
them to feast upon each other. ~~It~~
~~is supposed~~ this change from animal,
to a diet wholly vegetable, will
probably ~~not~~ ^{& peaceable} cooperate in producing
that mildness of temper which is
the prophecies of the old testament

on into our calculation - the num-
 ber of them almost exceeds calcula-
 tion, - and yet not one of these
 would have ever seen the sun - or
 partaken of those pleasures ^{animal or unusual} of which
 they enjoy in a much higher ^{degree} than the human species
 constitute with them ~~preferable~~ a
 degree of happiness proportioned to
 the absence of other pleasures, Unless
 the Ancestors of these animals had
 composed ^{constituted} part of the food of man. ^{Go to p: 587.}
~~I need further to remark, that~~
~~It belongs to the Materia Medica to~~
~~point out the different modes of pre-~~
~~-paring animal food, and to mention~~
~~the most common animals which~~
~~afford it. But it belongs to my branch~~
~~to say only remark that~~
~~There is not a single quadruped,~~

opure as will take place in the
reign of the prince of peace upon
our Earth. Some late travellers into
the interior parts of Africa tell us
that the vegetable productions of the
earth are so luxuriant ^{in the interior parts of Africa} that
the wild Beasts live upon them, &
that it is no uncommon thing for
parents to order their children to
drive the Lyons from their barn-
yards to prevent their eating up
all the straw which they allotted
for their domestic animals. ^{Thys} ~~Is~~
this we see the beginning of ^{that} those
peace and ^{order} ~~happiness~~ ~~prosperity~~ ~~upon~~
~~happy days which~~ ~~the~~
our globe which we are told are
to succeed ^{the past} ~~the~~ present state of
war & confusion in every part of
our world.

~~X~~bird - fish - insect - ~~wooden~~ - or
 serpent that exists, that has not
 only furnished food, - but a luxury
 in some age or country of the world.
 - Let this teach us to bear with certain
 animals which have been supposed
 to be interlopers or intruders upon
 our globe. They ~~are~~ ^{are} ~~were~~ all intended
 for the food ^{for benefit} of man or of other
 animals. Perhaps ^{the worship of} ~~the reason why~~
 some of the most loathsome & contemp-
 -tible animals ^{which we read of} ~~have been~~ the objects of
~~divine worship~~ in some countries,
 may have been ^{permitted} ~~overlooked~~ by provi-
 -dence only to preserve their species
 from extinction for the benefit

V Bring in from p: ^{or} 1 to 25 of letters
on domestic Economy. at X

[~~Animal food is wild & domestic -
The wild most easy of digestion.~~

~~Its qualities are much influenced
by its modes of preparation. These
are 1. Sops - ^{ch} are nourishing in
2. boiled. 3. roasted & fried 5. boiled -
^{Preserved by}
6. salted, 7. smoked 8. preserved in
molasses - or sugar 9. dried in the hot
Sun. 10. by frost. -~~

~~Fish intermediate between
Animal & veg: food in point of nourishment.~~

of man, for it is thus in a thousand instances that our benevolent Creator, ^{overrules} directs the ~~for~~ ignorance - the idolatry ^{all the} and follies of mankind in such a manner, as to render them subservient in different situations, or in successive generations to ~~their~~ ^{the} general and durable happiness ^{of his creatures.} ✓

~~we come now to treat of~~
~~Whole nations have lived on animal food alone. But they seldom enjoy perfect health or long life. I shall mention the diseases of animal diet alone in the pathology.~~

^{turn over}
~~to eggs first +~~ Vegetable aliment. turn over
 ✓ Vegetable food constitutes the nourishment of the greatest part of mankind. Whole nations live on Rice - Indian corn - and on

There are various methods of preparing Vegetables for Use. The fruits are eaten raw & these are most wholesome before dinner. The ^{seeds} ~~root~~ of the principal part ~~and most~~ of the roots are most wholesome and nutritious after they ^{and the}

partake of the action of fire, [with more they partake of it] provided they retain ~~their~~ ~~all~~ ~~our~~ ~~aliments~~ ~~use~~ ~~take~~ ~~from~~ ~~of texture~~ ~~of~~ ~~juices~~ the more easily they are digested. To this there is but one exception - viz Cabbage. It digests most easily when moderately boiled. go to p: 26 #12/15.

+ Eggs likewise constitute a material part of the diet of some countries. They are, like milk of a compound nature. The yolk is of an animal - the white of a vegetable nature. They are known to be sound, by one end of them imparting a sense of warmth to the tongue. The Quack: Dancourville viz he has learned

certain roots - and fruits of different
 kind. The Cerealia, or those seeds w.
 contain flour afford the ^{nourishment} ~~most~~ ^{of}
 of the greatest part of mankind.
 It belongs to the materia medica
 to dilate fully upon this Subject.

Besides Animals and Vegetables
 there is a substance which ^{constitutes} ~~composes~~
 the food of several Nations, and of
 every Individual those comes into
 the world for the first year or 15th of
 life - This substance is Milk. It
 consists of 3 parts - Cream - Whey -
 & Cheese - The Cream is the vegetable
 - the Cheese the animal part of the
 Milk. ~~It~~ Cows afford the most nourishment
 with. ~~It~~ I with both Animal
 go to p. 26 of No 15. # Milk when fed on
 a little grain, & well mixed & stirred.

say on putrefaction has proved that
the yolk under equal circumstances
✓ The stomach putrefies sooner than the
white - hence infers that the yolk is most
proper for weak stomachs. Eggs are most
healthy, when ~~moderately~~ ^{above} cooked. Presumed by
* with all ~~our~~ ^{go to p 26} ~~the~~ ^{oil} ~~the~~ ^{to be} certain
they are cooked by a heat below the boiling ~~point~~
~~point~~. ~~How?~~ return to p 600 - ~~the~~ ^{oil}
~~with which~~ ~~can~~ diluted and washed

down his food into his stomach. But in
every Age and Country substitutes of a
more cordial nature have been sought
for by Man. The juice of the grape -
and Beer obtained ^{fermented} by from Barley &
Other grains - and above all Ardent
Spirits have been most commonly
used in all parts of the world. - Where
these could not be obtained a liquor
obtained from Indian corn fermented
with human Saliva - a spirit obtained
from mare's milk - and even goat's
blood have all been preferred to

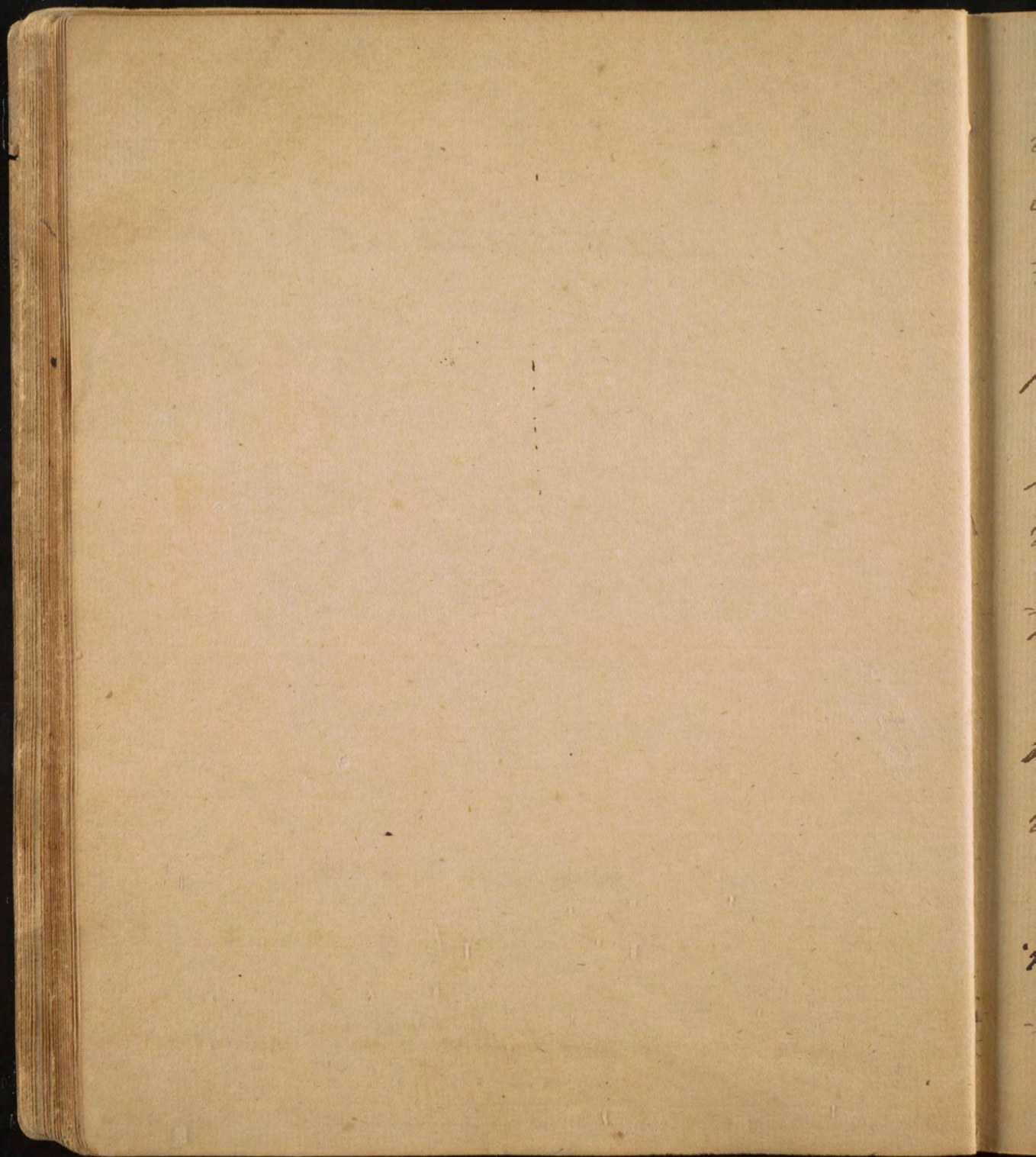
and vegetable food - we use a large
 quantity of certain substances called
 condiments. These are ^{pickles -} ~~being in~~
^{spices -} ~~pickles -~~ ^{must-}
^{principally} ~~spices -~~ ^{lectures on Animal}
^{p. 26, 27 & 28} ~~lectures on Animal~~
^{-lard - horse radish - &c}
 Economy. ^{Afterwards} ✓

~~The food when received into the mouth
 is ^{not} divided by means of the teeth. These
 are happily contrived for the purposes
 not only of dividing, but triturating the
 aliment. It is moistened by the saliva
 which is poured forth by means of the
 process of mastication, ^{in proportion} ~~and is for~~
^{parotid}
 as it is ~~is~~ required from the sublingual
 & maxillary glands. The tongue serves
 the important purpose of moving the
 food into such parts of the mouth,~~

simple water. But after all, water
has maintained its character for
greater salubrity than either of them.
nay - more it has retained its charac-
ter ^{in point of the} ~~for the~~ pleasure ^{it imparts} ~~we derive~~ to our
taste in the pure state of the system.
Above all the liquors which have
been mentioned. Are we thirsty?
Nothing but water can allay ^{our} ~~our~~
thirst ~~are~~ are we scorched with a
fever? nothing but water can cool
our tongues. ~~are~~ Have we been intox-
-icated or ^{only} ~~intoxicated~~ with Wine - Beer or
Spirits? nothing but water ^{can} ~~compose~~
the clamors of our angry & disgusted
Stomachs.] go to p: 26. - of n^o 15 #

as to favour the Action of the teeth upon
it. It afterwards protrudes it into ^c
fauces from whence it passes ~~by~~ the
tonsils into the ~~and~~ ~~Velum~~ Velum palati
and Epiglottis -
assisted by the Action of a greater num-
ber of small muscles into the Oesopha-
gus - into the Stomach where it un-
dergoes the process of Digestion. }

* Man is the Creature of habit, and
as he was intended to live every where
he is happily accommodated by the
Nature of his Appetite and Stomach
to live upon ~~every kind of~~ Aliment
varied in its origin - preparation &
mixture into an almost infinite
~~instead of being~~ ^{the great an} ~~various~~ ^{considered as}
Variety of ways. There is no food
Carnivorous, ~~or~~ herbivorous or granivorous animal, but
an omnivorous animal.



of any beast but what man ^{likes} ~~can~~
 both eat and even prefer. He has
 in the Shape of Tartar thrust his
 teeth into the Jugular veins of the
 Goat, and ^{drunken} ~~draws~~ a plentiful meal
 from his blood. ^{many} ~~many~~ nations of
 Savages live upon raw flesh. ~~Whole~~
~~as many~~ upon fish only - The Pata-
 gonians live wholly on horse flesh.
 But further - The variety of taste in
 Man has led him to feed with a
 relish upon the food of wild birds &
 beasts of prey. In the transactions of
 the Society of Philadelphians at his-
 paniola, there is an acc^t of several
 negroes who dug up putrid animals,

#

All Aliment is nourishing in proportion

1 to its Quantity of Sugar 2 its oil.

or glutinous matter.

3 its mucilage & ~~total effect~~ an

Ounce of Sugar contains the greatest^a Quantity of nourishment in it, than the same Quantity of any other Aliment. The Fruits & Vegetables of all kinds are nourishing in proportion to the Quantity of Sugar they contain. The Sugar cane - Dates & figs & Raisins ^{constitute} ~~have~~ ~~often~~ are in many Countries the ^{pleasant & wholesome} ~~the~~ ^{principal} part of the nourishment of man. The ^{Parsnip} ~~Carrot~~ Carrot - & Beef contain more sugar than the potatoes & hence they afford in a given Quantity more nourishment..

and fed voraciously upon it. This

The same variety of appetite and dispo-
^{to habit} ^{facility with}
^{nutrition} ^{of our}
^{which our}
 species ~~food~~ accommodate to different

kinds of vegetable food. The Persians
 & other fruits -
 live wholly upon Dates - The Arabians
 on Apples - Goats milk & water. & p
 Tournefort tells us that many of
 the inhabitants of Constantinople live
 during the summer on nothing but
 Cucumbers. This versatility of
 appetite however is not confined wholly
 to the human species. Spalanzani
 tells us that he taught an Eagle
 to eat bread, and to ^a pidgeon to
 eat animal food. V

This has been demonstrated by an experiment. Two pigs of the same age were weighed, ~~and~~ on a certain day. The one was fed on parsnips - the other on potatoes. At the end of a month, the one that was fed on parsnips had gained many times more of weight than the one that was fed on potatoes. — But 2^{ly} Oil whether vegetable or animal constitutes the second grade of nourishment in Aliment. The Oil of Olives, & Almonds affords nourishment to a great part of the Inhabitants of the Eastern Countries. A pound of fat meat of any kind affords more nourishment than 4th of lean meat — Pork ~~prose~~

There have been many Disputes as to the times of Eating among men. Some animals eat but once a day as the Eagle. 30 Ounces of flesh serves him for 24 hours. Some animals eat always - as the Horse. ~~Do~~ which of the practices of these two animals is most natural to man? I answer the practice of the horse, & that for the following reasons. 1 Children eat always. In them ^{the} ~~nature~~ ^{system} speaks out as the language of reason and health, for as yet they are uncorrupted by the customs of civilized life. 2 The

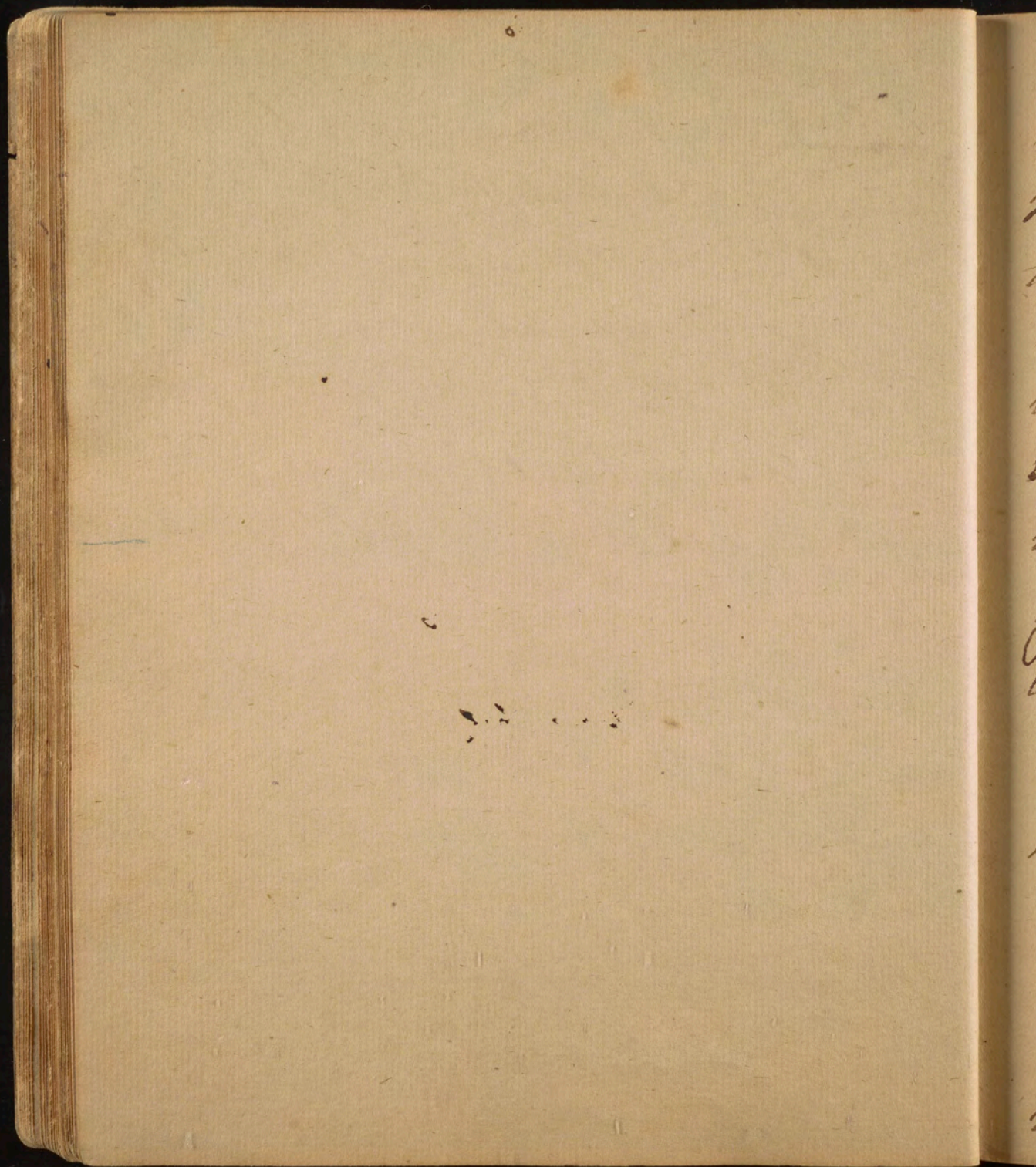
is more nourishing than
its ~~containing~~ more fat than Beef
from its ~~containing~~ more fat, or
~~is more nourishing~~ animal oil, & hence it is preferred
as the most frugal aliment for
Labourers, and persons who work at
Iron works, & the like. — 3rd Glutinous
or mucilaginous matters, contain
& 3 A small quantity of food is thrown
out of the ^{stomach} ~~stomach~~ ^{this the pylorus} with more care
than a large quantity, & in a
much shorter time. The smallest
quantity of ~~food~~ ^{nourishment}, in a given quantity
of matter. ~~Be~~ all the different grains
, roots, & many of the fruits abound
with this mucilage or gluten. It
is because they ^{afford} ~~contain~~ so little
nourishment in proportion to
this quantity of matter, that

Indians when they abound with provisions have no set times to eat. but ~~they~~ their jaws are seldom idle. Mrs Bartram tells us that they sometimes rise to eat in the night, and he adds that it is because they eat so constantly, that they have got the credit of being so temperate when ^{among civilized nations,} they are invited to public feasts; for they seldom set down to a meal ^{the} with an empty stomach. —

¶ The constant action of a small quantity of food in the stomach is more favourable to ^{the} equal circulation, of the blood and the equal excitement of the nervous system and of course to

we are able to eat so much more
of them, than we are of animal
I suspect the inordinate & universal
use of spirits - Tobacco [see p. 3] food
or of simple sugar. - The more
~~we are not to suppose that~~
sugar ^{or oil} they contain blended with
this glutinous matter, the more
nourishment they afford. This
glutinous matter ^{in vegetables} may be developed,
by certain chemical processes. ~~to~~ we
obtain it from wheat & potatoes ^{in the}
form ~~means~~ of starch. - go to ~~6 to 9~~ ^{p. 32} ~~9~~ ¹¹

good health, than the alternate
~~languor~~ and excitement which follows
 an empty Stomach, & a plentiful
 meal. — However salutary this
 simple & natural mode of eating
 may be, the business, - duties, - and
 necessities of adult and civilized
 life, have made it necessary to submit
 to regular meals. It remains then
 only to decide, - how can these be
 divided to the best advantage. Jan-
 -ner by adhering as nearly as possible
 to the dictates of nature, and taking
 three or four meals a day. The
 heavy and animal part of our
 food is usually taken in the



609
middle of the day, — but this is by
no means proper, — for the labor or
study which follow it are very hurtful
to digestion as I shall say hereafter.

— The principal meal should always
be made in the evening after the
business of the day is over. It is then
the body enjoys most rest, and it is

then the mind is most free from
distracting ^{the pursuit of business &c} a cheerful
care, and ~~the~~ mind as I shall say
hereafter acts ^{powerfully} upon the stomach in

promoting digestion. The evening is
moreover more ^{suited to the} ~~appropriate~~ pleasures

of Society. The Romans understood
this the truth of all the facts that
have been mentioned — hence this

✓ This has been ascertained very accurately
in many animals. ^{29.} An Elephant
which belonged to the King of the two Sicilies
eat 100 of Straw - One loaf of bread - and
two or three aromatic balls every day. ^{He} W.
these he took drank 200 gallons of water
every day in summer & 100 in winter.
A horse will not preserve his flesh upon less than
It is more difficult to ascertain what
100 lbs of hay in a day. The tiger ^{of flesh.} ~~100 lbs~~ ^{of} ~~our species.~~ ^{of} ~~by~~
quantity is most suitable for ~~man~~.

of water. Had very fetid stools. —

+ and all men require more food, and
liquids in winter than in summer.

Principal meal was always in the evening.

Q What Quantity of Aliment is proper in the course of a day? ^{It} ~~This~~ must be different according to the age and employment of individuals. A Child requires more in proportion to ^{its size than} an Adult, ~~than~~ and an Old man requires more than a ^{Principal} middle-aged man, for food is one of the stimuli which ~~supplies~~ ^{supports} old age; Labouring people moreover require more than those who lead indolent ^{lives.} ~~lives.~~ The quantity ^{of food} too should be regulated by its quality - for half the quantity of animal food

V The Chinese on Day of Rice. -

will go further than double the ^{common} quantity of vegetable - and ^{half the quantity} ~~a great part~~ of Sugar will ^{in part} give more strength & nourishment than ~~the~~ double the quantity of animal food. — ^{of the} ~~small~~ ^{common} ~~cases~~ food which we take every day, &c including artificial liquors (which all contain nourishment) ~~pre~~ said to be necessary for a healthy - active - or labouring man. ^{Here} But men require this quantity. The Turks according to Volney enjoy good health upon only ~~half~~ ^{two thirds} of aliment and this of the most insipid vegetable nature. From 44 to 46 I believe would be sufficient for most men. Habit

✓ Perhaps ^{eating} ~~eating~~ is less necessary to
nourish ^{the body} than to support the action
of the system by its constant stimulus.
= has upon every part of the body thro
the medium of the stomach. If this
be admitted, a few ounces of food of a
solid insoluble & stimulating qua-
= lity will support animal life in
comfortable circumstances more
than as many pounds of more
nourishing, ^{but} less stimulating
food. That it is the case, ^{the absence of the stimulus} I infer from ^{its} of
^{food} being so often supplied by other stimuli. I g
a fever which depends on ^{stimulus} ~~except~~
producing ~~except~~ of action in the arterial
system, ^{and of course sufficient action} ~~renders food wholly~~
in all parts of the body, renders the

will make that quantity agreeable,
and it is habit only that makes more
necessary. ~~It~~ One rule of great consequence,

never to eat - if you deliberate whether you shall eat
^{or not - guide - by your appetite} There have been many disputes

whether man should take his food
hot or cold. It is peculiar to the
human species only to eat warm food.

It is certainly more savoury in
this state. Habit soon makes it
wholly inoffensive if it was originally
contrary to nature - but I am
disposed to believe that this is not
the case. The Indians prefer warm
to cold food. ~~It~~ When taken cold
it soon acquires the temperature
of the stomach, and it is seldom

Stimulus of Aliment wholly unnecessary,
so hence persons live many days & even
weeks in a fever without taking an ounce
of nourishment. The same may be
said of other Stimuli - particularly
of the Contagious - they supply (as I
know from experience) the stimulus
of food on the system - thinking,
of the stimulus of violent, but
^{temporary} ~~short~~ bodily ~~but~~ exertion have the
same effect. But there are many instances

of life being supported by substances which
act by their stimulus only in the stomach
without any nourishing matter in them.
Several of these were mentioned in the
lectures on Animal life. Baron Humboldt
related a fact of a tribe of Indians of S. America
living for 3 months on clay with ~~and~~ with
a small quantity of Rice during a famine. He
mentions likewise another tribe ^{lived chiefly on} Resins.

taken so hot as to be beyond the
 temperature of the body. — ~~and~~ where
 it is, the ~~the~~ tongue — mouth — and
 throat soon lose their ~~their~~ from habit
 their sensibility to it. go to p. ~~13~~ ¹³ ~~12~~ ^{12 1/2}

Is it proper to drink frequently
 frequently or much ^{of} during the time ^{of} our meals?

— I answer — no — and that for
 the following reasons: Drinking
 frequently either blunts our appetite,
 if the liquor be weak, & increases
 it if the liquor be strong, such as wine
 both of which should be avoided
 at our meals. & 2 A large quan-
 tity of liquor washes the food out
 of the stomach before it is completely

of Map & Resin serve the same purpose in
certain hibernating Animals. go to p: 612 #
Dormancy in using unwholesome matters
for horses - prevents Distensions - why worse in
man?

~~V For the same reason that I condemn
drinking frequently at our meals, I con-
-demn the absurd practice of drinking wine
& bitters before dinner.~~

[Both of which are nourished originally
by vegetables. These are composed of air
& water, - so $\frac{1}{2}$ air & water are the foundation
of all the aliment of all the animals in
the world.]

digested. Temperate men should not
 - ~~over~~ drink, till they have finished
 their meal. There is a more inti-
 - ^{with health}mate connection with this practice
 than is generally imagined. &

The same objections apply to our
 taking wine and bitters, or to
 Drinking before our meals. The Indi-
 - cians avoid this practice with the ut-
 - most care]. —

On what does appetite depend?

Dr Boerhaave says 1^o on the action of the
 internal coat of the Stomach on itself, 2^o
 on the effusion of ~~phlegma~~ bile & the stimulus of
 the gastric juice on the stomach, & 3^o
 on the reliques of the last meal sti-
 - mulating the stomach. I grant these
 may be a morbid appetite from ^{vitiating} bile

upon each other, nor by the remains
of food left in it.

Dr Haighton supposes ^{this point} ~~if depends~~
connected with a peculiar Sympathy
of the whole System with the Stomach,
~~This relaxation invites a certain~~
~~calling for a recruit of its wasted matter.~~
~~degree of excitement in the stomach.~~
* It is possible the gastric juice may
act upon it ~~also~~ in this state, and
occasion the sensation of hunger. If
the ^{hunger} ~~appetite~~ be not gratified, at its
ordinary, & customary hour, ^{of recurring,} it ~~does~~
ceases ~~to~~ for a while to give us any
pain - nay, more, we lose our appetite

61p - also from tape worm
~~or gastritis~~ stimulating stomach, but
natural
hunger I believe is not excited by ~~it~~
nor yet by the attrition of the parietes of the stomach
of ~~these~~. Vesalius tells us that he once

dissected a robber who had been noted
for his gluttony, in whom the gall
bladder emptied itself by the Ductus
communis directly into the stomach.
The bile here was probably the cause
of his preternatural appetite. But
in ordinary cases ~~the~~ appetite is
excited when the stomach is empty
and relaxed to a certain degree w.^{ch}

I shall call the hungry point. When
the relaxation descends below this
~~hungry~~ point, anorexia or want of appetite
takes place - ~~to~~ It is removed only
by exciting the stomach, & raising

for a while altogether. This may be induced
by one of two causes. 1 a relaxation of the
stomach below the point of ^{or} ~~less~~ hunger, &
2 ~~the~~ It may arise from a ^{successful} reaction of the
stomach to overcome the flaccidity of the
Gastric Juice. This victory however of the
stomach is generally short lived. It soon
sinks into debility relaxation again. ~~when~~
hunger returns with more violence. I am
~~disposed to adopt the other explanation of this~~
^{there is a curious fact of dyspepsia which}
~~fact.~~ The stomach we know suffers principally
in this yellow fever. Towards the close of that
disease, we sometimes observe a ^{soon} voracious
Appetite. If this morbid appetite goes off, ~~in~~
the patient ~~and~~ often recovers - owing to ~~its~~
the ~~weak~~ stomach retaining life and to
react upon the gastric juice, but if it does
not go off in a day or two, the patient
dies, owing probably to its vital functions
being impaired beyond the point of reaction.

616
it up to the point of hunger. I should
it be asked why is a certain definite
degree of relaxation attended with the
sensation of hunger - I answer that
it must resolved into the same ^{will} ~~act~~ of
the Ditz which connected pain ~~and~~
~~pleasure~~ with certain degrees of relax-
ation in other parts of the system.]

The sensation of hunger is when it is
carried to a certain height a most acute
& depressing one. ^{It vitiates the taste.} It changes the temper-
-it affects the moral faculties - it is
said to break thro' ~~stone~~ ^{stone} walls, - it has
even done more - it has lead men
to murder as well as to steal - it
has driven ^{even} women to kill & eat their
own Children - ^{But this is not all} ~~and finally it has~~

✓ The sense of hunger is suspended by such things as elevate the stomach above the hungry point. These are Opium - Tobacco, and the food of certain Aliens to, while those stimuli which raise it to the hungry point create an or invigorate ^{it} the appetite. These are moderate joy - mountain air & gentle exercise - The effects of Joy appear in the appetite which is often excited by agreeable convivial society. Sometimes the sense of hunger is suspended by the ~~same~~ stimulants which induce it being overpowered by other stimuli particularly great exertions of the understanding. Lord Mansfield felt neither hunger nor thirst while he sat upon the bench during the longest trials. One Reason why Judges are often afflicted with the gravel & stone is because the exercises of their mind prevent their feeling the stimulants of their Urine. - turned over to p. 618. †

It has
led men to feed upon their own flesh.

After shipwrecks, sailors have often been
taken up who have gnawed their own
shoulders for subsistence. —

That a certain degree of relaxation in
the stomach is the ^{ordinary} cause of hunger, infer
from the effect of certain papers upon
it. It is suddenly suspended by grief-
fear-shame & the like. Now these
act by inducing debility below the
~~and cannot be supposed to act on any fluid~~
hungry point. They resemble those
~~in the stomach~~
directly debilitating causes I formerly
mentioned which prevent sleep by
reducing the system below the point
of sleep. Again - the appetite is often
~~invigorated by moderate joy. It can be~~
~~set with pleasure in an agreeable~~

company, when we cannot relish food
 if we sit down to our tables alone. I in-
 fer further, that the cause I have assigned
 is the ^{principal} ~~main~~ One - from the effect of
 a pure air - and gentle exercise in
~~restoring or increasing the appetite~~
~~It from the effect of to remove~~ all those
 causes which impair it (to be men-
 tioned hereafter) all of which act by
~~reducing the appetite below, or raising~~ it
~~too high (so as to induce~~ ^{above the hungry} ~~thirsty~~ ^{point}
 where is the seat - and

What is the cause of thirst? Its
^{& throat}
 seat I believe is in the fauces. I infer this
 from its being allayed frequently by
 sucking certain sweetened fruits, or by
^{only} washing the mouth with cold water.
 Its causes ^{are} ~~from~~ a certain acrimony

Stimulus here overcomes another. I have
in my lectures on Animal Life supposed that
the sense of hunger in man when he
conversed face to face with his maker on
Mount Sinai, was suspended wholly by
the powerful & delightful sense of the
Divine presence upon his mind. I men-
-tioned formerly that Lord Mansfield felt
neither hunger, nor thirst in the trial
of the longest causes. — Judges do not
feel stimulus of Urine from the same cause.
Capt. Bligh felt no thirst, nor hunger in his long
and dangerous voyage while his men were suffering &
most ^{of} exquisitely from both.
This relaxation becomes the invi-
-ting cause of a certain degree of
excitement.

Hunger is suspended in certain animals
by balls of mops & Rosins during the winter.
In the Spring they are voided whole.
Chap. tall vol. 1
p. 109

Stimulating the vessels of the fauces. This
 humors may ^{be either} ~~depend upon~~ general or
partial. It is general in fevers - and
 in those cases in which there is long
 abstinence from ^{where} ~~drinking~~ drinks - or ~~an~~
 humor has been retained in the
 blood by a suppression of urine. It is par-
tial when it is excited by salt meat,
 or any acid substance ^{or saline} & acts upon the
 fauces. - a 2nd Cause of thirst is ^{relaxation} ~~debility~~
 or a certain state of ^{some} ~~weakness~~ ^{debility} in the
 vessels of the fauces which may be called
 by the thirsty point. This occurs frequently
 in the bests from artificial causes particularly
 1 fear. all men feel it more or less be-
 fore and during the time of battle. 2 from
opium pain - which induces in these
 thirst. After it induces ^{Depression of the system.} ~~induced debility~~.

V The more completely it is thus divided, the
easier it is digested. 45 gr^s of flesh well masti-
cated were ^{grains} swallowed in a tube. 45 ^{not masti-}
cated were likewise swallowed.
- In the usual time of digestion 18 of the
former were dissolved, & but 4 of the latter.
Spalanzani.

See Ann:哲學 book p. 32 for excellent
remarks on the teeth. - next year. -

3 From Opium & Digitalis - and many other narcotic substances which do not act on the ~~brain~~ ^{brain} ~~panes~~. They produce thirst only when they ~~produce~~ ^{depress} ~~induce~~ debility, or reduce the system to $\frac{1}{4}$ ¹ thirsty point. — Lect. 25

The food ~~then~~ ^{before it is} received into the stomach is first divided by means of the teeth. These are happily contrived, not only for the purpose of dividing, but of triturating the aliment. It is moistened by the saliva which is poured forth by means of the pressure of mastication in proportion as it is required, from the parotid - the sublingual - & maxillary glands. — The tongue serves the important purpose of moving the food into

